

1646

## RAW SEQUENCE LISTING

DATE: 08/24/2000

PATENT APPLICATION: US/09/150,947B

TIME: 14:43:52

Input Set : A:\Cpg.pto

Output Set: N:\CRF3\08242000\I150947B.raw

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5 <110> APPLICANT: Kaempfer, Raymond
6   Arad, Gila
8 <120> TITLE OF INVENTION: BROAD SPECTRUM PYROGENIC EXOTOXINS
9   ANTAGONISTS AND VACCINES
11 <130> FILE REFERENCE: A31967-PCT-USA-A
13 <140> CURRENT APPLICATION NUMBER: 09/150,947B
14 <141> CURRENT FILING DATE: 1998-09-10
16 <150> PRIOR APPLICATION NUMBER: PCT/IL97/00438
17 <151> PRIOR FILING DATE: 1997-12-30
19 <150> PRIOR APPLICATION NUMBER: ISRAEL 119938
20 <151> PRIOR FILING DATE: 1996-12-30
22 <160> NUMBER OF SEQ ID NOS: 12
24 <170> SOFTWARE: FastSEQ for Windows Version 3.0
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 26
28 <212> TYPE: PRT
29 <213> ORGANISM: Staphylococcus aureus
31 <400> SEQUENCE: 1
32   Ser Glu Gln Glu Asn Cys Glu Leu Ile Ser Thr Ile Asn Gly Thr Asn
33     1             5             10             15
34   Lys Lys Lys Val Thr Ala Gln Glu Leu Asp
35     20             25
37 <210> SEQ ID NO: 2
38 <211> LENGTH: 12
39 <212> TYPE: PRT
40 <213> ORGANISM: Staphylococcus aureus
42 <400> SEQUENCE: 2
43   Tyr Asn Lys Lys Lys Ala Thr Val Gln Glu Leu Asp
44     1             5             10
46 <210> SEQ ID NO: 3
47 <211> LENGTH: 10
48 <212> TYPE: PRT
49 <213> ORGANISM: Staphylococcus aureus
51 <400> SEQUENCE: 3
52   Lys Lys Lys Val Thr Ala Gln Glu Leu Asp
53     1             5             10
55 <210> SEQ ID NO: 4
56 <211> LENGTH: 10
57 <212> TYPE: PRT
58 <213> ORGANISM: Staphylococcus aureus
60 <400> SEQUENCE: 4
61   Lys Lys Lys Ala Thr Val Gln Glu Leu Asp
62     1             5             10
64 <210> SEQ ID NO: 5
65 <211> LENGTH: 13
66 <212> TYPE: PRT
67 <213> ORGANISM: Staphylococcus aureus

```

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69 <220> FEATURE:
70 <221> NAME/KEY: LIPID
71 <222> LOCATION: (1)...(1)
72 <223> OTHER INFORMATION: N-lauryl cysteine residue
74 <400> SEQUENCE: 5
75 Cys Thr Asn Lys Lys Lys Val Thr Ala Gln Glu Leu Asp
76 1 5 10
78 <210> SEQ ID NO: 6
79 <211> LENGTH: 13
80 <212> TYPE: PRT
81 <213> ORGANISM: Staphylococcus aureus
83 <220> FEATURE:
84 <221> NAME/KEY: LIPID
85 <222> LOCATION: (1)...(1)
86 <223> OTHER INFORMATION: N-lauryl cysteine residue
88 <400> SEQUENCE: 6
89 Cys Tyr Asn Lys Lys Lys Ala Thr Val Gln Glu Leu Asp
90 1 5 10
92 <210> SEQ ID NO: 7
93 <211> LENGTH: 16
94 <212> TYPE: PRT
95 <213> ORGANISM: Staphylococcus aureus
97 <400> SEQUENCE: 7
98 Tyr Asn Lys Lys Lys Ala Thr Val Gln Glu Leu Asp Tyr Asn Lys Lys
99 1 5 10 15
101 <210> SEQ ID NO: 8
102 <211> LENGTH: 35
103 <212> TYPE: PRT
104 <213> ORGANISM: Staphylococcus aureus
106 <400> SEQUENCE: 8
107 Tyr Asn Lys Lys Lys Ala Thr Val Gln Glu Leu Asp Tyr Asn Lys Lys
108 1 5 10 15
109 Lys Ala Thr Val Gln Glu Leu Asp Tyr Asn Lys Lys Lys Ala Thr Val
110 20 25 30
111 Glu Leu Asp
112 35
114 <210> SEQ ID NO: 9
115 <211> LENGTH: 14
116 <212> TYPE: PRT
117 <213> ORGANISM: Staphylococcus aureus
119 <220> FEATURE:
120 <221> NAME/KEY: DISULFID
121 <222> LOCATION: (1)...(1)
123 <221> NAME/KEY: DISULFID
124 <222> LOCATION: (14)...(14)
126 <400> SEQUENCE: 9
127 Cys Tyr Asn Lys Lys Lys Ala Thr Val Gln Glu Leu Asp Cys
128 1 5 10
130 <210> SEQ ID NO: 10

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131 <211> LENGTH: 14
132 <212> TYPE: PRT
133 <213> ORGANISM: Staphylococcus aureus
135 <220> FEATURE:
136 <221> NAME/KEY: MOD_RES
137 <222> LOCATION: (1)...(1)
138 <223> OTHER INFORMATION: D-alanine
140 <221> NAME/KEY: MOD_RES
141 <222> LOCATION: (14)...(14)
142 <223> OTHER INFORMATION: D-alanine
144 <400> SEQUENCE: 10

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W--> 145 Xaa Tyr Asn Lys Lys Lys Ala Thr Val Gln Glu Leu Asp Xaa  
146 1 5 10

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148 <210> SEQ ID NO: 11
149 <211> LENGTH: 13
150 <212> TYPE: PRT
151 <213> ORGANISM: Staphylococcus aureus
153 <220> FEATURE:
154 <221> NAME/KEY: ACETYLATION
155 <222> LOCATION: (1)...(1)
156 <223> OTHER INFORMATION: N-acetyl group
158 <221> NAME/KEY: MOD_RES
159 <222> LOCATION: (13)...(13)
160 <223> OTHER INFORMATION: D-alanine
162 <400> SEQUENCE: 11

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W--> 163  Tyr Asn Lys Lys Lys Ala Thr Val Gln Glu Leu Asp Xaa
      164      1          5          10

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164      1
166 <210> SEQ ID NO: 12
167 <211> LENGTH: 239
168 <212> TYPE: PRT
169 <213> ORGANISM: Staphylococcus aureus
171 <400> SEQUENCE: 12
172  Glu Ser Gln Pro Asp Pro Lys Pro Asp Glu Leu His Lys Ser Ser Lys
173      1          5          10
174  Phe Thr Gly Leu Met Glu Asn Met Lys Val Leu Tyr Asp Asp Asn His
175      20          25          30
176  Val Ser Ala Ile Asn Val Lys Ser Ile Asp Gln Phe Leu Tyr Phe Asp
177      35          40          45
178  Leu Ile Tyr Ser Ile Lys Asp Thr Lys Leu Gly Asn Tyr Asp Asn Val
179      50          55          60
180  Arg Val Glu Phe Lys Asn Lys Asp Leu Ala Asp Lys Tyr Lys Asp Lys
181      65          70          75
182  Tyr Val Asp Val Phe Gly Ala Asn Tyr Tyr Tyr Gln Cys Tyr Phe Ser
183      80          85          90
184  Lys Lys Thr Asn Asp Ile Asn Ser His Glu Thr Asp Lys Arg Lys Thr
185      100          105          110
186  Cys Met Tyr Gly Gly Val Thr Glu His Asn Gly Asn Gln Leu Asp Lys
187      115          120          125
188  Tyr Arg Ser Ile Thr Val Arg Val Phe Glu Asp Gly Lys Asn Leu Leu

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189	130					135					140					
190	Ser	Phe	Asp	Val	Gln	Thr	Asn	Lys	Lys	Lys	Val	Thr	Ala	Gln	Glu	Leu
191	145					150					155					
192	Asp	Tyr	Leu	Thr	Arg	His	Tyr	Leu	Val	Lys	Asn	Lys	Lys	Leu	Tyr	Glu
193	165					170					175					
194	Phe	Asn	Asn	Ser	Pro	Tyr	Glu	Thr	Gly	Tyr	Ile	Lys	Phe	Ile	Glu	Asn
195	180					185					190					
196	Glu	Asn	Ser	Phe	Trp	Tyr	Asp	Met	Met	Pro	Ala	Pro	Gly	Asp	Lys	Phe
197	195					200					205					
198	Asp	Gln	Ser	Lys	Tyr	Leu	Met	Met	Tyr	Asn	Asp	Asn	Lys	Met	Val	Asp
199	210					215					220					
200	Ser	Lys	Asp	Val	Lys	Ile	Glu	Val	Tyr	Leu	Thr	Lys	Lys	Lys		
201	225					230					235					

VERIFICATION SUMMARY

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OK L:145 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10  
L:163 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11